



# Freshwater Fish of Victoria - Galaxiids

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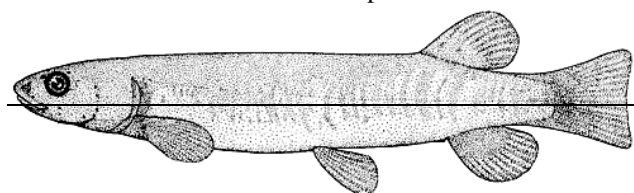
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## Family:

*Galaxiidae*

**General Characteristics:** Long tubular body. No scales but lateral line is present. Single, soft dorsal fin set well back on the back. No adipose fin.



## Common Name:

## Other Name/s:

## Scientific Name:

Broad-finned Galaxias  
Climbing Galaxias,  
Cox's Mountain Galaxias  
*Galaxias brevipinnis*  
Gunther, 1866  
Native

## Status:

## Description

Large head, with a large mouth reaching to well below the eye. Lower jaw is shorter than the upper jaw. Squared tail. Greyish-brown to dark olive on the upper body, sides are lighter. There is often a blue-black blotch above the pectoral fin (fin immediately behind the gill cover). Belly colour varies from light olive to dull silvery. Body patterns can vary from curved vertical bands to irregular blotches or rows of spots. Large downturned pectoral fins. Anal fin begins slightly forward of the middle of the dorsal fin.

## Distribution

Coastal drainages across Victoria. Distribution is patchy with locally abundant populations in the Otways and Wilsons Promontory.

## Habitat

Frequents small turbulent rocky streams flowing through heavily-timbered catchments, apparently preferring cool, clear, slightly acid water. Also found in lakes, living amongst rocks on the bottom.

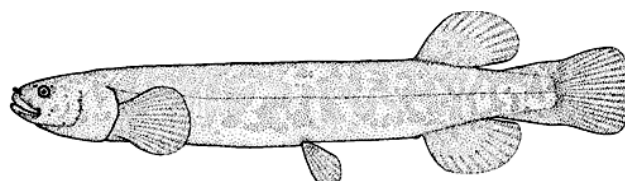
## Brief Biology

Known to reach nearly 28 cm, it is most commonly found to between 15-17 cm. Life cycle details are unclear. Spawning is thought to occur in the late Autumn or early winter in upper reaches of streams. Newly hatched larvae are carried downstream to the sea where, after further development, they return to fresh water the following spring. Upstream movement appears to be in response to reduced salinities at river mouths associated with flooding. Landlocked populations in freshwater lakes have adapted

to use feeder streams for breeding. Considered to be an opportunistic carnivore, feeding on insect larvae and surface prey such as flies.

## Other Notes

Secretive, solitary species, well known for its ability to climb steep waterfalls and rocky surfaces, it adheres to the rock surface, out of the water flow, using its pectoral and pelvic fins. There is evidence that populations of this Galaxiid have been adversely affected by introduced fish such as trout.



## Common Name:

## Other Name/s:

## Scientific Name:

Tasmanian Mudfish  
Mud trout  
*Galaxias cleaveri*  
Scott, 1934  
Native

## Status:

Tasmanian Mudfish is listed under the *Flora and Fauna Guarantee Act 1988*. Under this legislation, the taking, possession or trading of Tasmanian Mudfish is prohibited without a permit, license of Governor-in-Council Order issued under the Act. Departmental research and management activities have been authorised by a Governor-in-Council Order.

## Description

Short, blunt rounded head. Medium-sized mouth with equal length jaws. Very small eyes. Rounded tail with fin flanges running forward almost to the dorsal and anal fins. Tail fin is usually rounded. Greenish-brown on the back and sides, belly is usually light grey. A light stripe is sometimes present along the belly. Sides and bases of the fins are marked with numerous dark brown stripes and blotches.

## Distribution

In Victoria, known to occur in one stream on Wilsons Promontory (first recorded in 1980), the lower reaches of the Wye River, Otway Ranges (1983), and found in 1990 in the Aire River and tributaries, western Otways. Indications are that *G. cleaveri* is more widespread in Victorian than previously believed, as there is unsurveyed typical habitat at a number of locations.

## Habitat



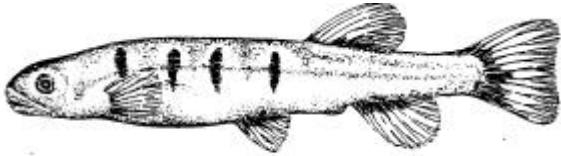
Low altitudes, in well vegetated swamps, low-lying swampy habitats and drains.

### Brief Biology

Known to reach 14 cm in length, commonly about 8 cm. Little is known of the general biology, but apparently spawns in winter or spring. Appear to be an omnivore, eating detritus and insects. Young migrate up from the ocean.

### Other Notes

Believed to be capable of becoming dormant in periods of low, hot water. Burrows into mud or found beneath logs and stones.



**Common Name:**

**Other Name/s:**

**Scientific Name:**

**Status:**

Barred Galaxias  
Brown galaxias  
(Usage to be discouraged)  
*Galaxias fuscus*  
Mack, 1936  
Native, Endangered

Barred Galaxias is listed under the *Flora and Fauna Guarantee Act 1988*. Under this legislation, the taking, possession or trading of Barred Galaxias is prohibited without a permit, license of Governor-in-Council Order issued under the Act. Departmental research and management activities have been authorised by a Governor-in-Council Order.

### Description

Very short, blunt head, with very blunt snout. Jaws equal, with mouth reaching to below the eye. Tail weakly forked. Anal fin set well back, under last third of dorsal fin. Bright orange, to yellowish brown all over, upper body slightly darker. Prominent dark oval blotches on both flanks between pectoral fin base and start of anal fin.

### Distribution

Restricted to small tributaries of the upper Goulburn, Big and Acheron Rivers, north of the Great Dividing Range. Distribution has contracted eastward from the Yea River system.

### Habitat

Medium to high altitude streams (500-1200 m) where water temperatures during winter can reach 3°C. Streams are small, clear and generally steep, and during the late winter/early spring are fast flowing. Rock, gravel and sand substrate.

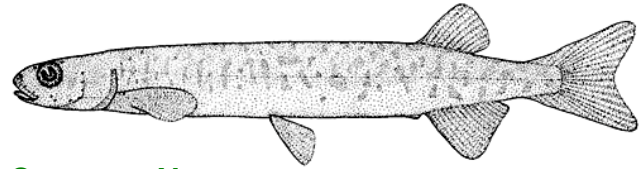
### Brief Biology

Can reach 15.5 cm in length, though usually around 8-10 cm. Reproduction information is scanty, though spawning is completed entirely in fresh water during mid to late spring (July-September). Larvae remain in fresh water at high altitudes. Many life-cycle details are still unknown. Diet is aquatic insects.

### Other Notes

Distribution has contracted over the last 60 years. This has been caused by predation/competition pressure from introduced salmonids, particularly Rainbow Trout. Other threats to populations may be from the effects of timber

harvesting operations on water quality and instream habitat. A species protection program has been undertaken in very small headwater of the Acheron and Goulburn Rivers where barriers have been erected to prevent the upstream movement of trout and trout have been actively removed from above the barriers.



**Common Name:**

**Other Name/s:**

**Scientific Name:**

**Status:**

**Description**

Long, slender body with small pointed head. Small mouth reaching back to the large eye. Colour varies from olive to grey to amber. Irregular greenish-grey blotches or spots are present on the back and sides. Lower sides, gill covers and eyes may be silver. Fins are colourless. Dorsal and anal fins are set in line.

**Distribution**

Widespread and common in southern Victoria. Landlocked populations occur in several Western District lakes, including Bullen Merri, Colac, Modewarre and Purrumbete, and Lake Elusive in east Gippsland.

**Habitat**

Most abundant in still and gently flowing waters, lakes and lagoons, coastal streams and swamps.

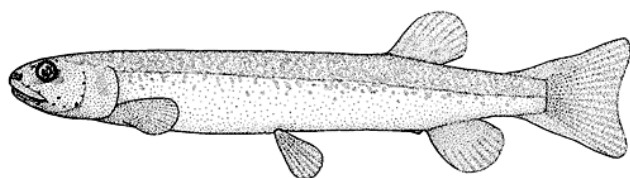
**Brief Biology**

Reaches a maximum size of 19cm, but is commonly 7.5-9 cm. Adults move downstream on a new or full moon during autumn, and spawning occurs amongst vegetation on river estuary margins when these are covered by high spring tides. Eggs are left stranded for about 2 weeks between spring tides, development being assured by high humidity and stable temperatures under the vegetation. Hatching occurs when tide water returns; larvae are carried out to sea. Juveniles move back into estuaries and lower fresh waters during the spring.

Landlocked populations use inflowing streams for spawning, which occurs from July to October on flooded grassy stream banks after heavy rain. Hatching depends on subsequent flooding about 2 weeks later but can be delayed for up to a month after spawning. Females may live for 3 years. High salinity tolerance to levels exceeding that of sea-water. Opportunistic carnivore eating a wide variety of aquatic and terrestrial insects, as well as small crustaceans.

**Other Notes**

Most widely distributed Galaxiid, extending over a large part of the Southern Hemisphere. Important food species for predatory species inhabiting lower reaches and estuaries during spring and summer. Landlocked populations certainly comprise an important diet for predatory fish in those waters. Reported as a good species for mosquito control.

**Common Name:****Other Name/s:****Scientific Name:****Status:****Description**

Small blunt head with a blunt snout. Equal jaws, with the mouth reaching to below the eye. Weakly forked tail. Dark brown to yellowish-green on the upper body, sides are lighter and the belly whitish. Back and upper sides are usually spotted, speckled or blotched with dark grey. Anal fin begins under the rear half of the dorsal fin.

**Distribution**

Widespread and abundant both north and south of the Great Dividing Range.

**Habitat**

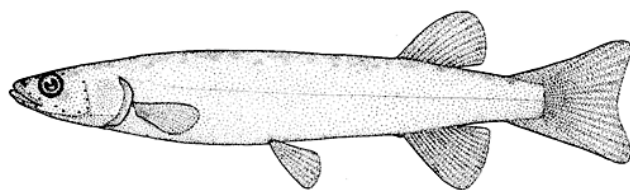
Medium to high altitude streams (up to 1,800 m) where water temperatures are cooler and streams smaller with rock, gravel or sand substrates. Also found over mud substrates in quieter stretches of water.

**Brief Biology**

Can reach 13.5 cm in length, but is usually 6 cm or less. Reproduction information is incomplete but spawning is known to occur in upper freshwater areas in spring and summer, as late as April in alpine populations; there is no migration to sea. Small, sticky eggs are laid under rocks in streams or in gravel. Can tolerate water temperatures of 32°C. Carnivorous, eating a wide range of aquatic insects, small crustaceans, molluscs and worms, and will also eat terrestrial insects, particularly where there is overhanging vegetation.

**Other Notes**

Has a distinct preference for clear water but will hibernate by burrowing into soft silt in a creek bed during winter. Has also been recorded amongst moist leaves under rocks in dry creek bed in Queensland. Food fish for large predatory native and introduced species. The distribution of this Galaxiid has been adversely affected by the introduction of trout. Good as mosquito control.

**Common Name:****Other Name/s:****Scientific Name:****Status:****Description**

Flattened forehead. Large mouth which reaches to below the eye with equally developed jaws. Slightly forked tail fin. Olive-green on the back and upper sides, often with

Mountain Galaxias  
Inland galaxias,  
Ornate mountain galaxias  
*Galaxias olidus*  
Gunther, 1866  
Native

irregular darker grey-green blotches. Lower sides and belly are bright silvery, eyes are also silvery. All fins are colourless. Dorsal and anal fins in line.

**Distribution**

Widespread in northern Victoria, although locally abundant.

**Habitat**

Most frequently found at low altitudes in still or slow-flowing warm waters such as lakes, lagoons, billabongs and backwaters.

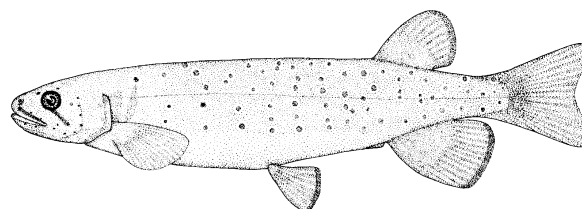
**Brief Biology**

Known to grow to 13.5 cm; often exceeds 10 cm. Reproductive biology is poorly known, but females are believed to produce 3,000-7,000 eggs. Spawning can occur in small ponds when water temperatures reach 9-14°C.

Carnivorous, feeding on a wide range of aquatic insects and crustaceans and will leap out of the water to take insects flying near the water's surface.

**Other Notes**

Probably a food fish for other larger predatory native and introduced species. Good as mosquito control. Distribution seems to have dramatically contracted over the last 50 years.

**Common Name:****Other Name/s:****Scientific Name:****Status:****Description**

Deep body with a broad, deep head. Mouth reaches the front of the eye with jaws of equal length. Usually brown to olive-grey upper body, lighter on the sides, with olive to silver belly. Body is covered with many round spots, sometimes in vertical rows. Each spot is surrounded by a pale halo. Two blue-black blotches on the body behind the gill cover. Fins are olive to brown, with some smaller fins orange on the outer half. Dark edge on the dorsal and anal fins. Distinct diagonal stripe across the head, passing through the eye. Beginning of anal fins is slightly behind the start of the dorsal fin.

**Distribution**

Coastal drainages from East Gippsland to the South Australian border. Distribution is patchy, but locally abundant in some waters.

**Habitat**

Still or slow-flowing streams, amongst cover near banks or on the bottom; at low altitudes and close to the sea. Landlocked populations occur in some lakes, near cover such as rocks.

**Brief Biology**

Reaches a maximum size of 20 cm, although more frequently reaches 12-14 cm. Many life-cycle details are still unknown. Spawning is reported as occurring in

Spotted Galaxias  
\*Spotted mountain trout,  
\*Mountain trout  
\* Incorrect common names, usage is discouraged.  
*Galaxias truttaceus*  
Valenciennes, 1846  
Native

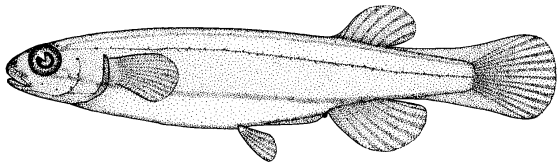
Flat-headed Galaxias  
Murray jollytail,  
Flat-headed jollytail  
*Galaxias rostratus*  
Klunzinger, 1872  
Native



autumn or early winter near adult habitats. Larvae probably go to sea, returning as slender transparent juveniles during spring. Landlocked populations probably spawn in the spring. Females are apparently capable of laying more than 5,000 eggs. Tolerant of a wide salinity range.

### Other Notes

A food fish for predatory native and introduced species. Populations affected by trout, either by direct predation or by competition for food. Good at mosquito control.



**Common Name:**  
**Other Name/s:**  
**Scientific Name:**

Eastern Little Galaxias  
Dwarf galaxias  
*Galaxiella pusilla*  
(Mack, 1936)

**Status:**

Native, Endangered

Eastern Little Galaxias is listed under the *Flora and Fauna Guarantee Act 1988*.

Under this legislation, the taking, possession or trading of Eastern Little Galaxias is prohibited without a permit, license of Governor-in-Council Order issued under the Act. Departmental research and management activities have been authorised by a Governor-in-Council Order.

### Description

Deep body at the belly, short head with a round, blunt snout and equal length jaws. Rounded tail with long flanges reaching along the body almost to the dorsal and anal fins. White to silver belly. Olive to amber upper body with three horizontal dark stripes along the sides of the body.

Males have a conspicuous orange stripe between the mid and lower dark stripes; females lack this orange stripe. Start of dorsal fin is behind the start of the anal fin.

### Distribution

Widespread from Gippsland to the South Australian border. Very patchy distribution, but locally abundant in some waters.

### Habitat

Still, shallow waters, often with heavy weed growth, including lakes, roadside ditches and swamps.

### Brief Biology

Females reach 4 cm, males 3.5 cm. General biology is poorly known, but it remains in freshwater for its entire life. Spawning has been observed from August to October; females lay between 150 and 200 eggs. Eggs may be laid singly, often on the underside of aquatic vegetation. Food of the Eastern Little Galaxiid in the wild is little known; does well in aquaria, where it is carnivorous, eating small insects and also plant material such as algae.

#### Infosheets - Freshwater Fish of Victoria

is a series of brief information material on the native and introduced freshwater fish of Victoria's inland waters. Further, detailed reading on Galaxiids is contained in:

*Freshwater Fishes of South-Eastern Australia*  
R M McDowall (Ed.)

*A Guide to the Freshwater Fish of Victoria*  
Phillip Cadwallader & Gary Backhouse,  
Department of Conservation and Environment

*Australian Freshwater Fishes*  
John R. Merrick & Gunther E. Schmida

*Biological Information for Management of Native  
Freshwater Fish in Victoria*  
J D Koehn, W G O'Connor

Prepared with the assistance of Gary Backhouse, Phillip Cadwallader and Tarmo Raadik.

FN080.DOC

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Illustrations (except Barred Galaxiid) after R M McDowall, Ed.,  
*Freshwater Fishes of South-Eastern Australia*, Reed, 1980

Illustration Barred Galaxiid - Steve Saddler